UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF COMMERCIAL FISHERIES

CALIFORNIA FISHERY MARKET NEWS MONTHLY SUMMARY

April 1965

PART II–Fishing Information*

Sea-surface temperatures, fishing and research information of interest to the West Coast tuna-fishing industry and marine scientists

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*Part 1 - "Fishery Products Production and Market Data" is issued by the Bureau of Commercial Fisheries, Market News Service, Post Office Building, San Pedro, California

SEA SURFACE TEMPERATURE CHARTS, EASTERN PACIFIC OCEAN

APRIL 1965

Acknowledgments

The following organizations and stations contributed data for the April 1965 charts:

U.S. Bureau of Commercial Fisheries Exploratory Fishing and Gear Research Base, Seattle, Washington
U.S. Bureau of Commercial Fisheries Biological Laboratories, La Jolla, California; Honolulu, Hawaii and Seattle, Washington
U.S. Weather Bureau, San Diego, California
U.S. Naval Communication Station Balboa, Fort Amador, Canal Zone
U.S. Weather Bureau Port Meteorological Office, Cristobal, Canal Zone
Guadalupe Island, Coronado Island, Ensenada, Cedros Island and Almejas Bay by Pedro Mercado of the Universidad Autonoma de Baja California, Ensenada, Mexico
Hopkins Marine Station, Pacific Grove, California by J. P. Balesteri
Instituto Nacional de Pesca Del Ecuador
Inter-American Geodetic Survey by Rene Cortes at Salina Cruz, Mexico; L. A. Peren at Pt. Armuelles, Panama; R. H. Valencia at San Jose, Guatemala; V. E. Castillo at Tumaco, Colombia; G. Tapia at San Cristobal, Galapagos; S. Valenzuela at La Libertad, Ecuador; E. Lopez and E. Guerrero at Talara, Peru; J. Cardenas at San Juan, Peru
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Kelco Company, San Diego, California
Lifeguard Headquarters, Newport Beach, California
Pacific Oceanographic Group, Nanaimo, British Columbia, by H. J. Hollister from observations by T. Collins at Quatsino Lightstation; J. L. Fraser at Cape St. James Light; B. Stuart at Amphitrite Point Light; W. Redlac at Langara Island Light
Scripps Institution of Oceanography, La Jolla, California by Margaret Robinson and Hans Klein
Ships Independence, Royal Pacific

Charts

Figure 1.--Mean sea surface temperatures (°F) derived from approximately 8000 observations. Squares show temperatures at weather-ship stations. Numerals on shore are temperatures at coastal and light-ship stations.

Figure 2.--Deviation of sea surface temperatures (°F) from long term charts of H.O. 225. Hatched areas are colder than mean.

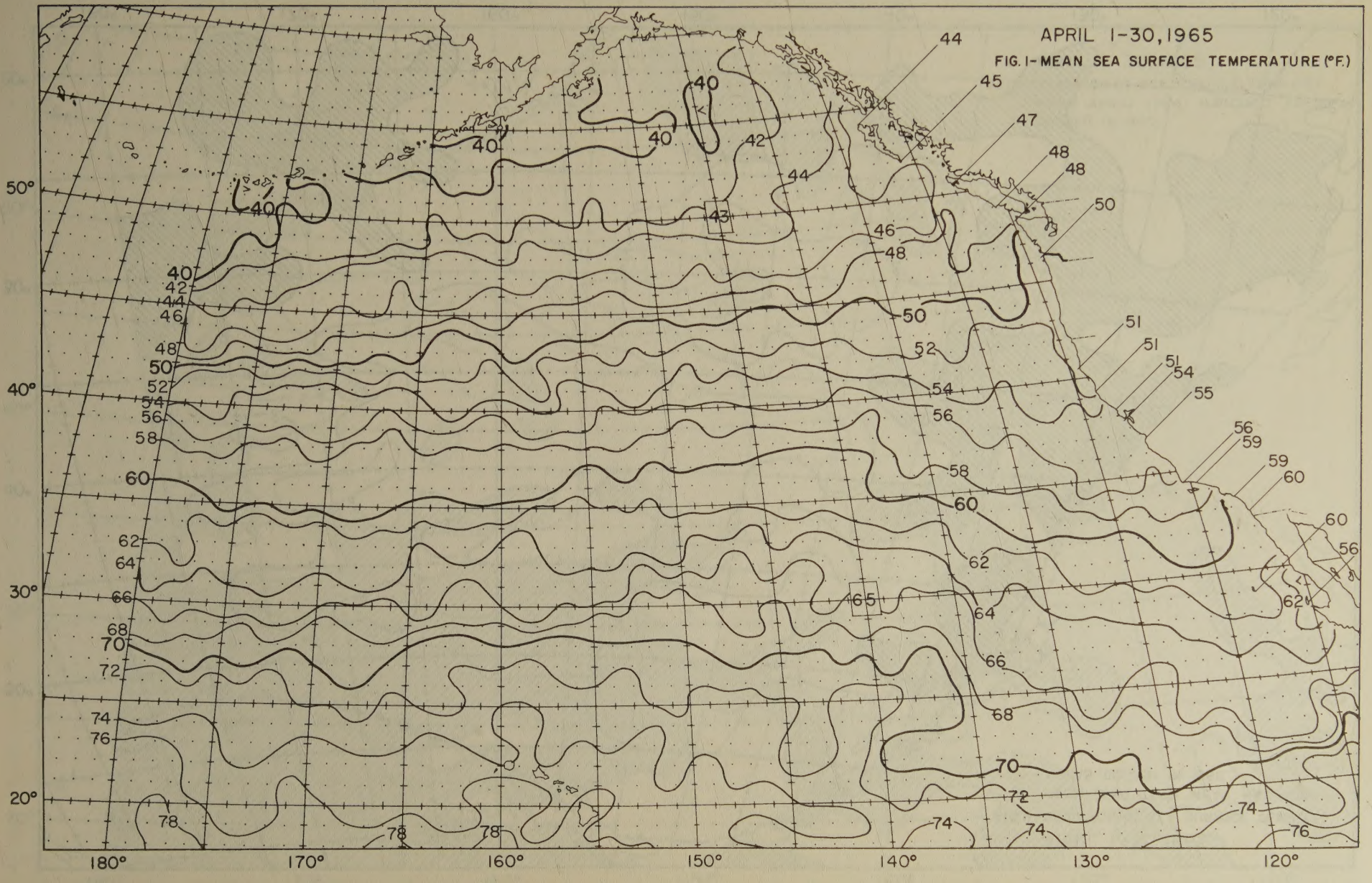
Figure 3.--Deviation of sea surface temperatures (°F) from those of April 1964. Hatched areas are colder than 1964.

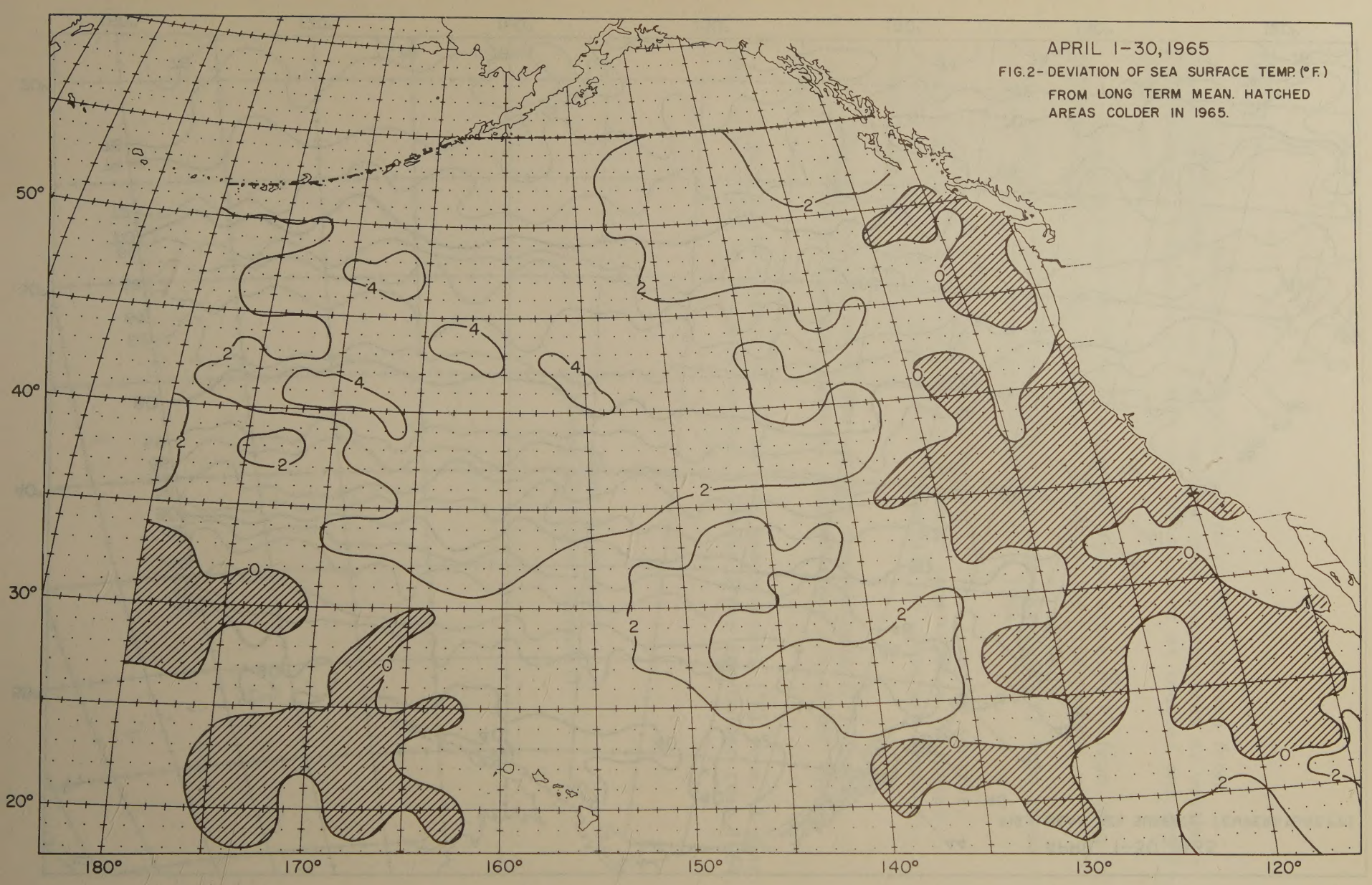
Figure 4.--Sea surface temperatures (°F) by 1-degree squares, approximately 2000 observations. Line under temperatures indicates average of two or more observations. Numerals on shore are temperatures at coastal stations.

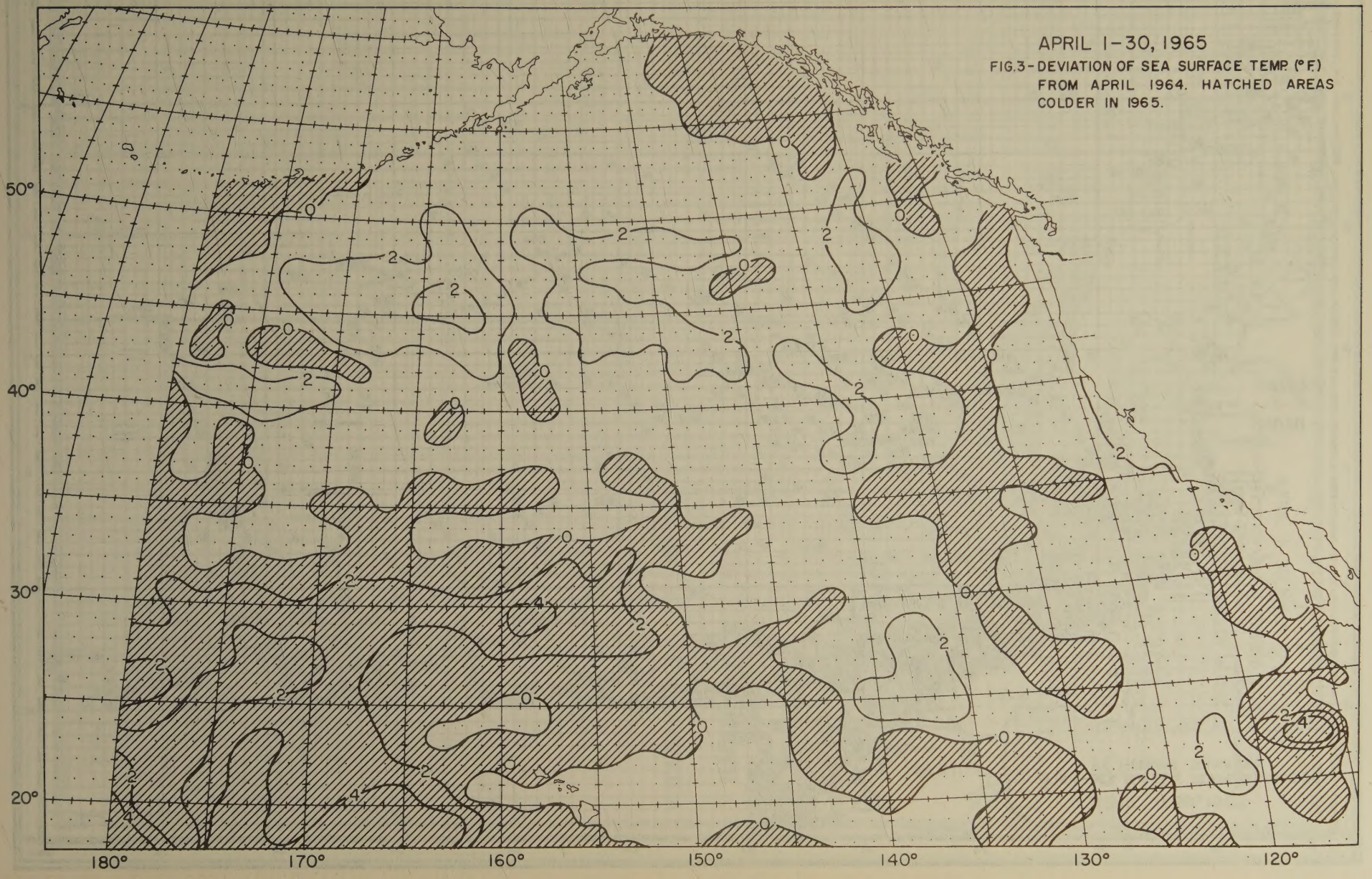
Figure 5.--Deviation of sea surface temperatures (°F) April 1965-April 1964 by 1-degree squares. Shaded areas are colder than 1964.

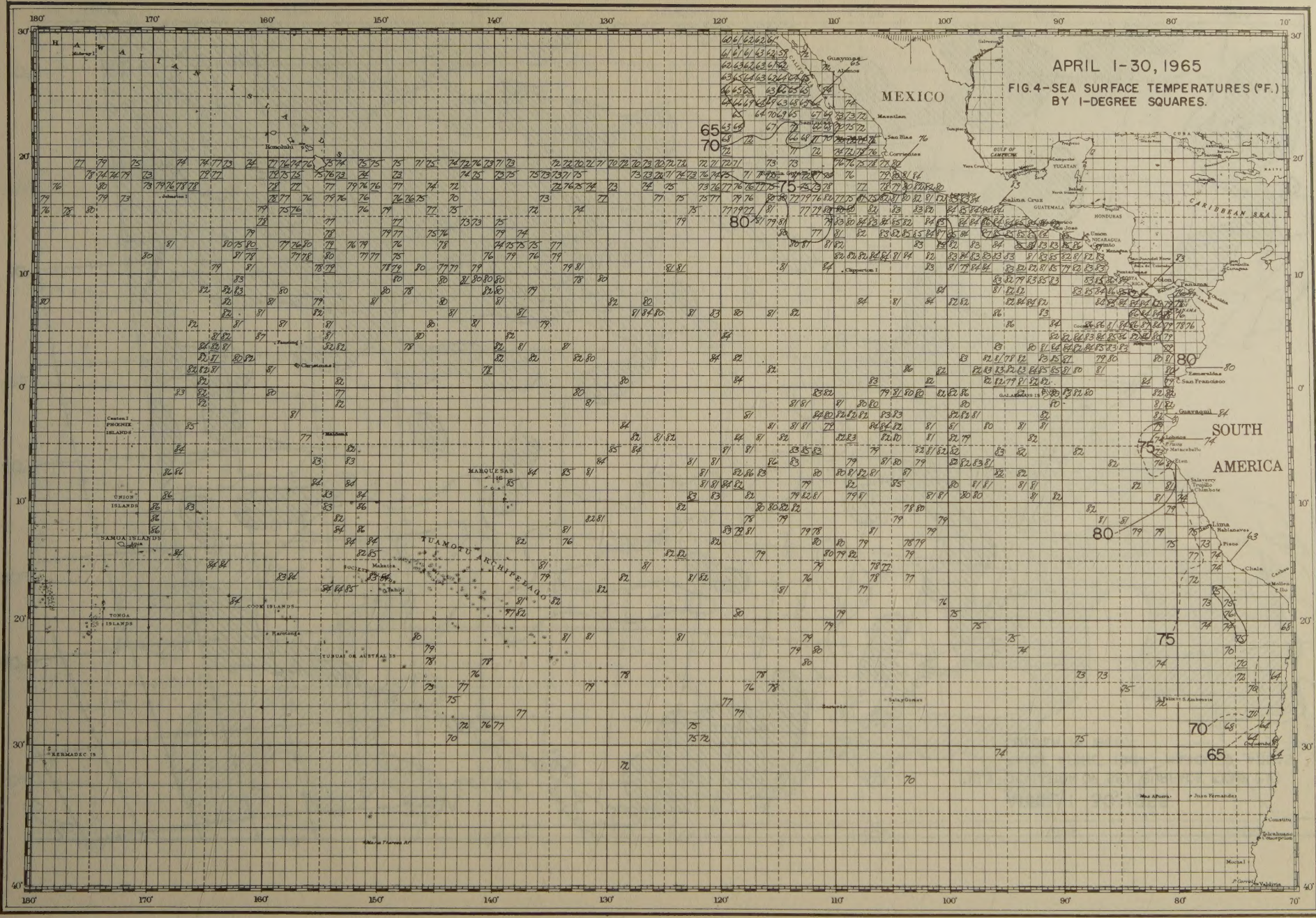
Figure 6.--Deviation of sea surface temperatures (°F) from 12-year mean (1947-1958) by 2-degree squares. Shaded areas are colder than 1964.

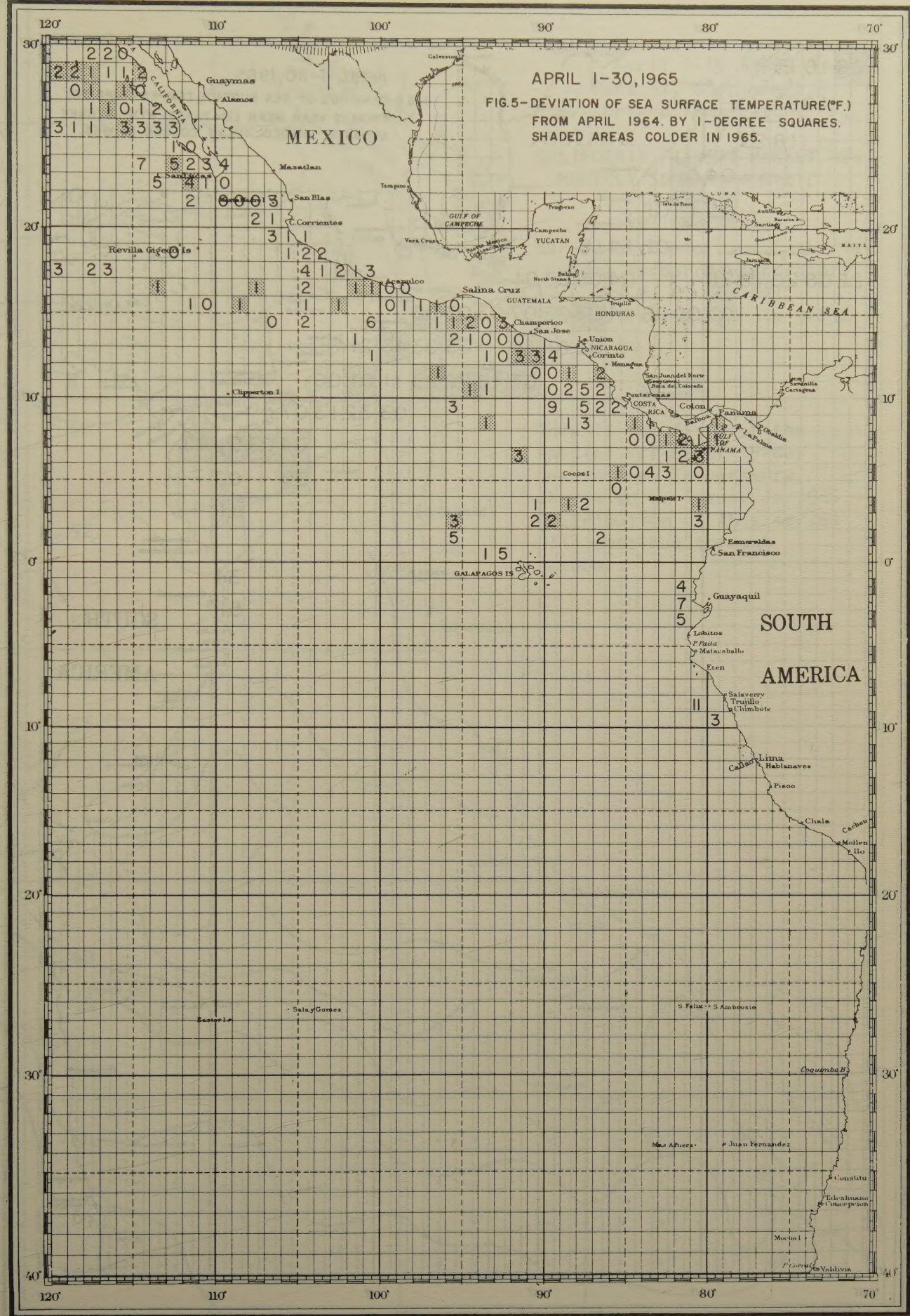
James A. Renner
Fishery Biologist (General)

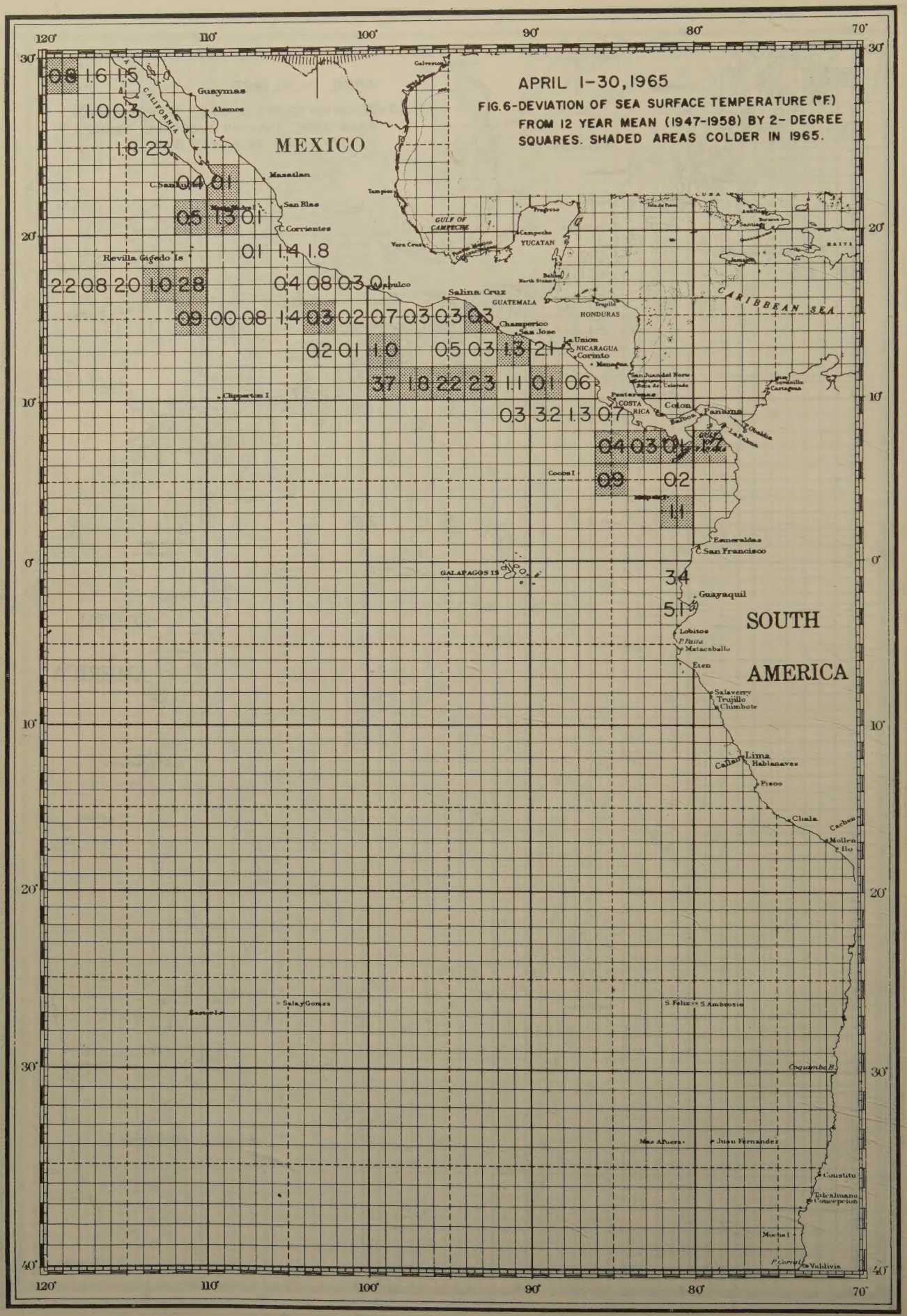

APRIL 1-30, 1965
FIG. 1- MEAN SEA SURFACE TEMPERATURE (°F.)
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°

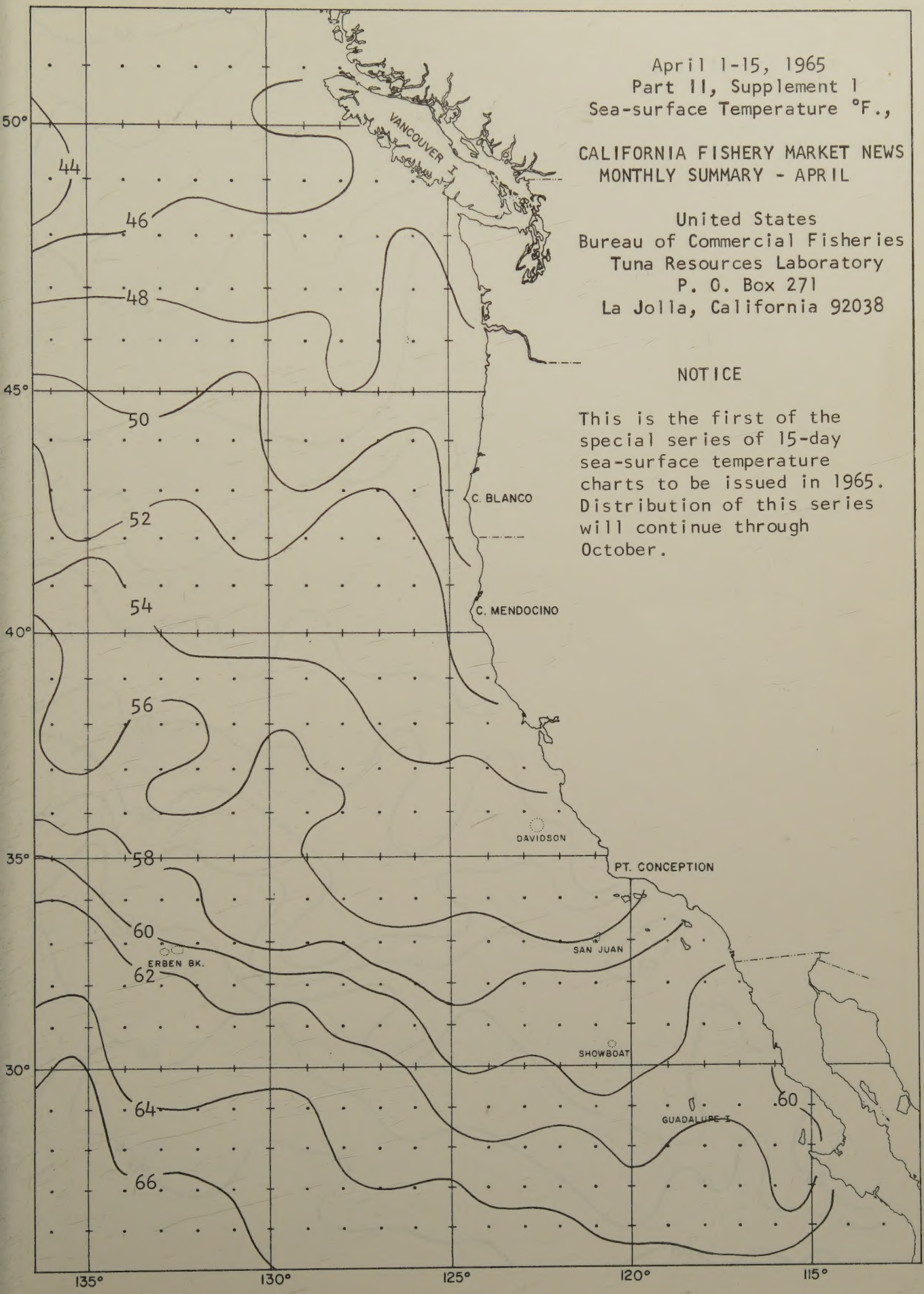

APRIL 1-30, 1965
FIG. 2 - DEVIATION OF SEA SURFACE TEMP. (°F.) FROM LONG TERM MEAN. HATCHED AREAS COLDER IN 1965.
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°
0
2
4


APRIL 1-30, 1965
FIG.3-DEVIATION OF SEA SURFACE TEMP. (°F.) FROM APRIL 1964. HATCHED AREAS COLDER IN 1965.
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°


APRIL 1-30, 1965
FIG. 4-SEA SURFACE TEMPERATURES (°F.) BY 1-DEGREE SQUARES.
MEXICO
SOUTH AMERICA
CARIBBEAN SEA
HAWAIIAN ISLANDS
Honolulu
MARQUESAS
TUAMOTU ARCHIPELAGO
SAMOA ISLANDS
TONGA ISLANDS
COOK ISLANDS
UNION ISLANDS
PHOENIX ISLANDS
KERMADEC IS
Guayaquil
Lima
Callao
Salaverry
Trujillo
Chimbote
Chala
Pisco
Arica
Iquique
Antofagasta
Valparaiso
Concepcion
Talcahuano
Coquimbo
Juan Fernandez
Mas A Fuera
Mas A Tierra
Salinas
Manta
Esmeraldas
San Francisco
Colon
Panama
Puntarenas
Corinto
Acapulco
Salina Cruz
Manzanillo
Mazatlan
San Blas
Guaymas
Cristobal
Balboa
Tumaco
Buenaventura
Malpelo I
Clipperton I
Cocos I
Galapagos Is
Easter I
Sala y Gomez
Rapa
Mangareva
Pitcairn I
Henderson I
Ducie I
Oeno I
Raivavae
Rurutu
Tubuai or Austral Is
Rarotonga
Penrhyn
Manihiki
Rakahanga
Suwarrow I
Palmyra I
Jarvis I
Fanning I
Christmas I
Canton I
Malden I
Tahiti
Moorea
Maiao
Mehetia
Makatea
Rocket Bk
Nassau I
Samoa
Apia
Tutuila
Manua Is
Swains I
Tokelau Is
Fakaofo
Nukunonu
Atafu
Niue I
Aitutaki
Manuae
Mitiaro
Atiu
Mauke
Rimatara
Rurutu
Tubuai
Raivavae
Marotiri Is
Maria Theresa Rf
Vostok I
Flint I
Caroline I
Starbuck I
Malden I
Jarvis I
Fanning I
Christmas I
Palmyra I
Suwarrow I
Penrhyn
Manihiki
Rakahanga


APRIL 1-30, 1965
FIG. 5 - DEVIATION OF SEA SURFACE TEMPERATURE (°F.) FROM APRIL 1964. BY 1-DEGREE SQUARES. SHADED AREAS COLDER IN 1965.
MEXICO
SOUTH AMERICA
CARIBBEAN SEA
GULF OF CAMPECHE
GULF OF PANAMA
GALAPAGOS IS
CUBA
HAITI
GUATEMALA
HONDURAS
NICARAGUA
COSTA RICA
Guaymas
Alamos
Mazatlan
San Blas
Corrientes
Revilla Gigedo Is
Acapulco
Salina Cruz
Champerico
San Jose
La Union
Corinto
Managua
Clipperton I
Tampico
Vera Cruz
Progreso
Campeche
YUCATAN
Belize
North Stann Ck
Trujillo
Galveston
Isla de Pinos
Antilla
Baracoa
Santiago
Guantanamo
Jamaica
San Juan del Norte
Boca del Colorado
Cartagena
Puntarenas
Colon
Panama
Bahia
Chiriqui
La Palma
Cocos I
Malpelo I
Esmeraldas
C. San Francisco
Guayaquil
Lobitos
P. Pitta
Mataccaballo
Eten
Salaverry
Trujillo
Chimbote
Callao
Lima
Hablanave
Pisco
Chala
Cachen
Mollen
Ilo
Sala y Gomez
Easter I.
S. Felix
S. Ambrosio
Coquimba B.
Mas Afuera
Juan Fernandez
Constitu
Talcahuano
Concepcion
Mocha I.
Valdivia
120°
110°
100°
90°
80°
70°
30°
20°
10°
0°
40°


APRIL 1-30, 1965
FIG.6-DEVIATION OF SEA SURFACE TEMPERATURE (°F) FROM 12 YEAR MEAN (1947-1958) BY 2- DEGREE SQUARES. SHADED AREAS COLDER IN 1965.
MEXICO
SOUTH AMERICA
CARIBBEAN SEA
GULF OF CAMPECHE
CALIFORNIA
GUATEMALA
HONDURAS
NICARAGUA
COSTA RICA
CUBA
HAITI
YUCATAN
Galveston
Tampico
Progreso
Campeche
Vera Cruz
Belize
Guaymas
Alamos
Mazatlan
C. San Lucas
San Blas
C. Corrientes
Revilla Gigedo Is
Acapulco
Salina Cruz
Champerico
San Jose
La Union
Corinto
Managua
San Juan del Norte
Bahia de Colorado
Puntarenas
Clipperton I
Cocos I
Colon
Panama
Balboa
Chame Pt.
Pedro Gonzalez I.
Taboga I.
Obaldia
Gulf of San Miguel
Esmeraldas
C. San Francisco
GALAPAGOS IS
Guayaquil
Lobitos
P. Pariña
Matacaballo
Eten
Salaverry
Trujillo
Chimbote
Lima
Callao
Huacho
Hablanaves
Pisco
Chala
Cachas
Mollendo
Ilo
Salas y Gomez
Easter I.
S. Felix
S. Ambrosio
Coquimbo
Mas Afuera
Juan Fernandez
Constitucion
Talcahuano
Concepcion
Mocha I.
Corral
Valdivia
120°
110°
100°
90°
80°
70°
40°
30°
20°
10°
0°



April 1-15, 1965
Part II, Supplement 1
Sea-surface Temperature °F.,

CALIFORNIA FISHERY MARKET NEWS MONTHLY SUMMARY - APRIL

United States
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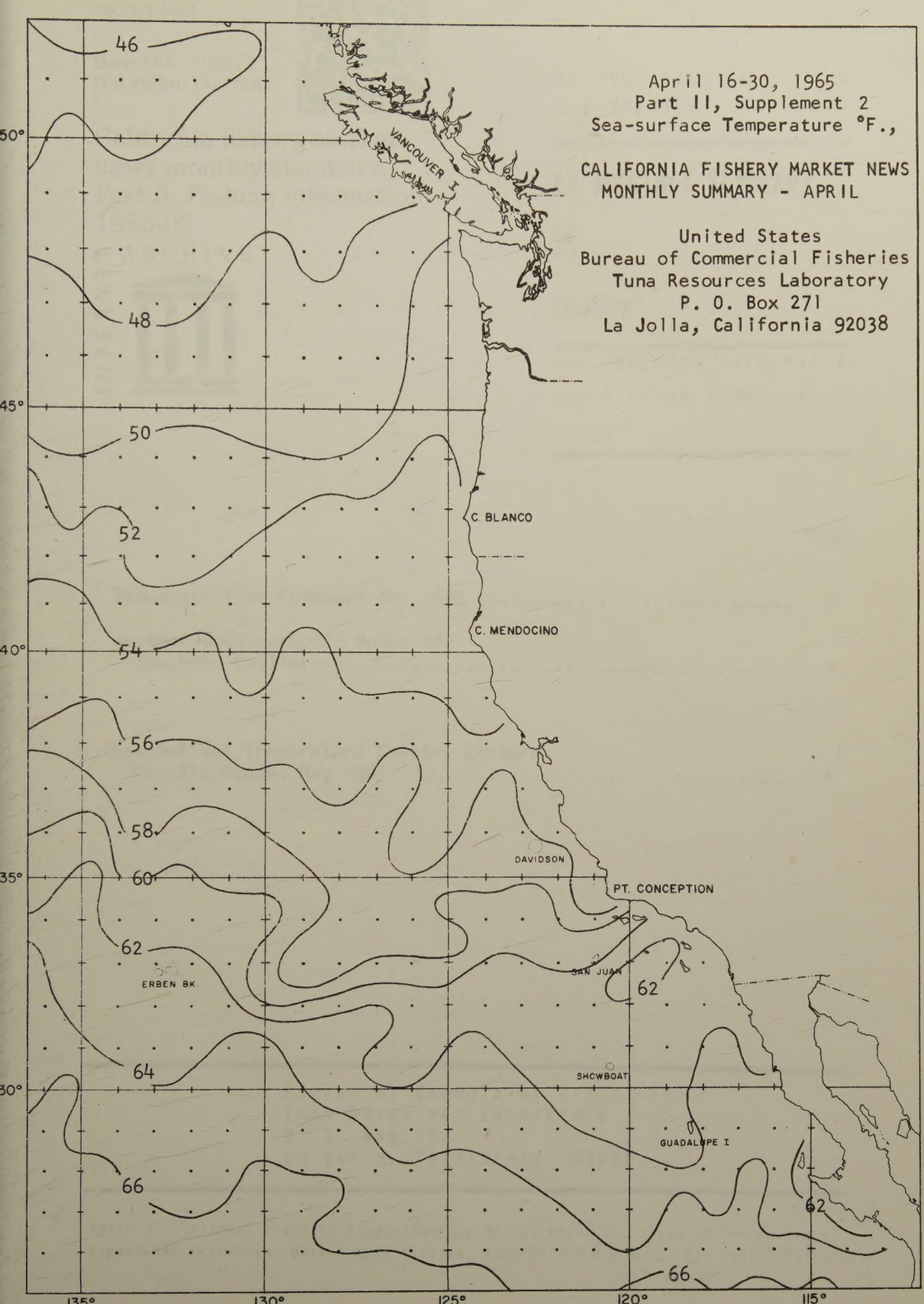
NOTICE

This is the first of the special series of 15-day sea-surface temperature charts to be issued in 1965. Distribution of this series will continue through October.


April 16-30, 1965
Part II, Supplement 2
Sea-surface Temperature °F.,
CALIFORNIA FISHERY MARKET NEWS
MONTHLY SUMMARY - APRIL
United States
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Tuna Resources Laboratory
P. O. Box 271
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VANCOUVER I.
C. BLANCO
C. MENDOCINO
DAVIDSON
PT. CONCEPTION
SAN JUAN
SHOWBOAT
GUADALUPE I
ERBEN BK
46
48
50
52
54
56
58
60
62
64
66
62
62
66
50°
45°
40°
35°
30°
135°
130°
125°
120°
115°